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09/990,097	11/20/2001	Osman K. Isvan	18864-06145	1285

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EXAMINER

CHAU, COREY P

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,097

Applicant(s)

ISVAN, OSMAN K.

Examiner

Corey P. Chau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 6,8,9,17,19,20,41-57 and 61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7,10-16,18,21,23,24,26,39,40,62 and 63 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,22,25,27-29,35,37 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 6, 8-9, 17, 19-20, 41-57, and 61 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/29/2005.

Withdrawn claims 6 and 17 disclose “the controller is adapted to change volume of at least one sealed acoustic cavity acoustically coupled to the diaphragm”, which draws to embodiment 2.

Withdrawn claims 8 and 19 discloses “the controller is adapted to change an amount of acoustic absorption in an acoustic channel coupling the acoustic sensing point to the microphone diaphragm”, which draws to embodiment 3 (claims 8 and 19 falls in the scope of claims 48 and 51).

Withdrawn claims 9 and 20 discloses “the controller is adapted to change an amount of impedance mismatch in an acoustic channel coupling the acoustic sensing point to the microphone diaphragm”, which draws to embodiment 3 (claims 9 and 20 falls in the scope of claims 48, 52 and 53).

Withdrawn claim 61 discloses “a first acoustic channel in the primary boom encased in a first material; and a second acoustic channel in the secondary boom encased in a second material, the first acoustic channel being of variable length in response to a sliding position of the secondary boom relative to the primary boom”, which draws to embodiment 3 (claim 61 falls in the scope of claims 48 and 51).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 58 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5761298 to Davis et al. (hereafter as Davis).

4. Regarding Claim 58, Davis discloses an apparatus capable of providing output signals in response to acoustic signals, including acoustic signals received from a desired acoustic source (Fig. 1), the apparatus comprising:

a main body (Fig. 1);

a microphone housed in the main body (102);

a primary boom (16), coupled to the main body; and

a secondary boom (20) slidably coupled to the primary boom and having an opening at a distal end thereof, the opening being acoustically coupled to the microphone, wherein the ratio of an amplitude of the output signal to an amplitude of acoustic signals received at the opening of the secondary boom is a function of the position of the secondary boom (Figs. 1, and 3A-3B).

5. All elements of Claim 60 are comprehended by Claim 58. Claim 60 is rejected for the reasons stated above apropos to Claim 58 (Figs. 1, and 3A-3B).

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6. Claims 58, 59 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4020297 to Brodie.

7. Regarding Claim 58, Brodie discloses an apparatus capable of providing output signals in response to acoustic signals, including acoustic signals received from a desired acoustic source (Fig. 1), the apparatus comprising:

- a main body (Fig. 1);

- a microphone housed in the main body (18);

- a primary boom (column 2, lines 24-34 and lines 56-68), coupled to the main body; and

- a secondary boom (column 2, lines 24-34 and lines 56-68) slidably coupled to the primary boom and having an opening at a distal end thereof, the opening being acoustically coupled to the microphone, wherein the ratio of an amplitude of the output signal to an amplitude of acoustic signals received at the opening of the secondary boom is a function of the position of the secondary boom (Fig. 1).

8. Regarding Claim 59, Brodie discloses the primary boom is movably coupled to the main body; and the ratio of the amplitude of the output signal to the amplitude of the received acoustic signal is a function of the positions of both the primary boom and the secondary boom (Fig. 1; column 2, lines 24-34 and lines 56-68)

9. All elements of Claim 60 are comprehended by Claim 58. Claim 60 is rejected for the reasons stated above apropos to Claim 58 (Figs. 1, and 3A-3B).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 4, 7, 10-16, 18, 21, 23-24, 26, 39-40, and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5761298 to Davis in view of U.S. Patent N. 5359157 to Liu.

12. Regarding Claim 1, Davis discloses an apparatus capable of providing an output signal in response to sound pressure in the vicinity of a desired acoustic source, the apparatus comprising (Fig. 1):

a main body (Fig. 1);

a boom (20), movably coupled to the main body and adapted to be positioned in at least a first position or a second position (Fig. 1);

a microphone (102);

an acoustic sensing point (Figs. 1 and 3A-3B), acoustically coupled to the microphone, wherein the acoustic sensing point is disposed at different distances from the desired acoustic source when the boom is in the first position and the second position; and

a controller (Figs. 1 and 3A-3B), coupled to the boom, for changing a ratio of an amplitude of the output signal to an amplitude of sound pressure at the acoustic sensing point in response to the position of the boom.

Davis discloses a microphone, but only generally; no specific hardware is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known microphones. Liu for example, discloses a microphone comprising a diaphragm. It would have been obvious to one having ordinary skill in the art to employ any known microphones, such as that of Liu. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Davis with the teaching of Liu to utilize a microphone comprising a diaphragm.

13. All elements of Claim 4 are comprehended by Claim 1. Claim 4 is rejected for the reasons stated above apropos to Claim 1.

14. All elements of Claim 7 are comprehended by Claim 1. Claim 7 is rejected for the reasons stated above apropos to Claim 1.

15. All elements of Claim 10 are comprehended by Claim 1. Claim 10 is rejected for the reasons stated above apropos to Claim 1 (Fig. 1).

16. Regarding Claim 11, Davis does not expressly disclose the apparatus is a mobile phone. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a mobile telephone in order to allow desired configuration of a boom used to receive sound from the user of the mobile phone. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Davis to utilize the apparatus as a mobile telephone in order to allow desired configuration of a boom used to receive sound from the user of the mobile phone.

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17. Regarding Claim 12, Davis does not expressly disclose the apparatus is a sound recorder. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a sound recorder in order to allow desired configuration of a boom used to receive sound from the user of the sound recorder. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Davis to utilize the apparatus as a sound recorder in order to allow desired configuration of a boom used to receive sound from the user of the sound recorder.

18. Regarding Claim 13, Davis does not expressly disclose the apparatus is a video camera. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a video camera in order to allow desired configuration of a boom used to receive sound from the user of the video camera. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Davis to utilize the apparatus as a video camera in order to allow desired configuration of a boom used to receive sound from the user of the video camera.

19. Claim 14 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

20. Claim 15 is essentially similar to Claim 2 and is rejected for the reasons stated above apropos to Claim 2.

21. Claim 16 is essentially similar to Claim 3 and is rejected for the reasons stated above apropos to Claim 3.

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22. Claim 18 is essentially similar to Claim 7 and is rejected for the reasons stated above apropos to Claim 7.

23. Claim 21 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1 (Figs. 1 and 3A-3B).

24. Regarding Claim 23, Davis discloses the boom is slidably coupled to the main body so as the extended from the main body and closer to the desired acoustic source in the first position, and retracted towards the main body in the second position; and the microphone receives acoustic signals through the first opening located at a distal end of the boom when the boom is in each of the first and second position (Fig. 1).

25. Regarding Claim 24, Davis discloses the main body includes a boom jacket; and the boom is slidably coupled to the boom jacket (Fig. 1).

26. All elements of Claim 26 are comprehended by Claim 21. Claim 4 is rejected for the reasons stated above apropos to Claim 21.

27. Claim 39 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1 (Figs. 1 and 3A-3B).

28. All elements of Claim 40 are comprehended by Claim 39. Claim 40 is rejected for the reasons stated above apropos to Claim 39.

29. Regarding Claim 62, Davis does not expressly disclose the secondary boom comprises a steel tube. However, the Examiner takes Official Notice that it would have been obvious to one having ordinary skill in the art to utilize any known material such as steel in order to obtain the desired output. Therefore it would have been obvious to one

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having ordinary skill in the art at the time the invention was made to modify Davis to utilize any known material such as steel in order to obtain the desired output.

30. All elements of Claim 63 are comprehended by Claim 1. Claim 63 is rejected for the reasons stated above apropos to Claim 1.

31. Claims 1, 4, 7, 10-16, 18, 21, 23-24, 26, 30-34, 36, 39-40, and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5761298 to Davis in view of U.S. Patent N. 5359157 to Liu.

32. Regarding Claim 1, Brodie discloses an apparatus capable of providing an output signal in response to sound pressure in the vicinity of a desired acoustic source, the apparatus comprising (Fig. 1):

- a main body (Fig. 1);

- a boom (19,21,22,23), movably coupled to the main body and adapted to be positioned in at least a first position or a second position (Fig. 1);

- a microphone (18);

- an acoustic sensing point (column 2, lines 56-68), acoustically coupled to the microphone, wherein the acoustic sensing point is disposed at different distances from the desired acoustic source when the boom is in the first position and the second position; and

- a controller (Fig. 1), coupled to the boom, for changing a ratio of an amplitude of the output signal to an amplitude of sound pressure at the acoustic sensing point in response to the position of the boom.

Brodie discloses a microphone, but only generally; no specific hardware is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known microphones. Liu for example, discloses a microphone comprising a diaphragm. It would have been obvious to one having ordinary skill in the art to employ any known microphones, such as that of Liu. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodie with the teaching of Liu to utilize a microphone comprising a diaphragm.

33. All elements of Claim 4 are comprehended by Claim 1. Claim 4 is rejected for the reasons stated above apropos to Claim 1.

34. All elements of Claim 7 are comprehended by Claim 1. Claim 7 is rejected for the reasons stated above apropos to Claim 1.

35. All elements of Claim 10 are comprehended by Claim 1. Claim 10 is rejected for the reasons stated above apropos to Claim 1 (Fig. 1).

36. Regarding Claim 11, Brodie as modified does not expressly disclose the apparatus is a mobile phone. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a mobile telephone in order to allow desired configuration of a boom used to receive sound from the user of the mobile phone. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodie as modified to utilize the apparatus as a mobile telephone in order to allow desired configuration of a boom used to receive sound from the user of the mobile phone.

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37. Regarding Claim 12, Brodie as modified does not expressly disclose the apparatus is a sound recorder. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a sound recorder in order to allow desired configuration of a boom used to receive sound from the user of the sound recorder. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodie as modified to utilize the apparatus as a sound recorder in order to allow desired configuration of a boom used to receive sound from the user of the sound recorder.

38. Regarding Claim 13, Brodie as modified does not expressly disclose the apparatus is a video camera. However, the Examiner takes Office Notice that it would have been obvious to one having ordinary skill in the art to utilize the apparatus as a video camera in order to allow desired configuration of a boom used to receive sound from the user of the video camera. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brodie as modified to utilize the apparatus as a video camera in order to allow desired configuration of a boom used to receive sound from the user of the video camera.

39. Claim 14 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

40. Claim 15 is essentially similar to Claim 2 and is rejected for the reasons stated above apropos to Claim 2.

41. Claim 16 is essentially similar to Claim 3 and is rejected for the reasons stated above apropos to Claim 3.

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42. Claim 18 is essentially similar to Claim 7 and is rejected for the reasons stated above apropos to Claim 7.

43. Claim 21 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1 (Figs. 1).

44. Regarding Claim 23, Brodie as modified discloses the boom is slidably coupled to the main body so as the extended from the main body and closer to the desired acoustic source in the first position, and retracted towards the main body in the second position; and the microphone receives acoustic signals through the first opening located at a distal end of the boom when the boom is in each of the first and second position (Fig. 1; column 2, lines 24-34 and lines 56-68).

45. Regarding Claim 24, Brodie as modified discloses the main body includes a boom jacket; and the boom is slidably coupled to the boom jacket (Fig. 1).

46. All elements of Claim 26 are comprehended by Claim 21. Claim 4 is rejected for the reasons stated above apropos to Claim 21.

47. Regarding Claim 30, Brodie as modified discloses the boom comprises at least a first segment and a second segment movably coupled to the first segment, so as to provide the first position wherein the first segment is extended from the main body and the second segment is extended from the first segment, both being extended closer to the desired acoustic source, and to provide the second position wherein the first segment and the second segment are both retracted towards the main body (Fig. 1); and the microphone receives acoustic signal through the first opening located at a distal

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end of the second segment of the boom when the boom is in each of the first and second position (Fig. 1; column 2, lines 56-68; column 3, lines 9-19).

48. Regarding Claim 31, Brodie as modified discloses the first segment of the boom is slidably coupled to the main body (Fig. 1).

49. Regarding Claim 32, Brodie as modified discloses the first segment of the boom pivots about the main body (Fig. 1).

50. Regarding Claim 33, Brodie as modified discloses the second segment of the boom is slidably coupled to the first segment (Fig. 1).

51. Regarding Claim 34, Brodie as modified discloses the second segment of the boom pivots about the first segment (Fig. 1; column 2, lines 24-34).

52. All elements of Claim 36 are comprehended by Claim 1. Claim 36 is rejected for the reasons stated above apropos to Claim 1.

53. Claim 39 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1 (Figs. 1 and 3A-3B).

54. All elements of Claim 40 are comprehended by Claim 39. Claim 40 is rejected for the reasons stated above apropos to Claim 39.

55. Regarding Claim 62, Brodie as modified does not expressly disclose the secondary boom comprises a steel tube. However, the Examiner takes Official Notice that it would have been obvious to one having ordinary skill in the art to utilize any known material such as steel in order to obtain the desired output. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to modify Brodie as modified to utilize any known material such as steel in order to obtain the desired output.

56. All elements of Claim 63 are comprehended by Claim 1. Claim 63 is rejected for the reasons stated above apropos to Claim 1.

Allowable Subject Matter

57. Claims 2-3, 5, 22, 25, 27-29, 35, and 37-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

58. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 2485405 to Olney et al discloses a dipole microphone (column 6, line 55 to column 12, line 25)

59. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P. Chau whose telephone number is (571)272-7514. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 12, 2005
CPC



HUYEN LE
PRIMARY EXAMINER